

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for predicting a future quality of a downlink communication channel comprising:

receiving a downlink data communication;

performing at least one current quality measurement on the downlink data communication to determine the current quality of the downlink ~~data~~ communication channel;

retrieving at least one stored quality measurement;

deriving, based on the current quality measurement and the at least one stored quality measurement, a predictive channel quality indication (CQI) estimating the future quality of the downlink ~~data~~ communication channel on a per time slot basis; and

transmitting the predictive CQI to a Node B, wherein the predictive CQI includes at least one of a recommended transport block size, modulation format, or number of codes.

2. (Previously Presented) The method of claim 1, further including storing the at least one current quality measurement.

3. (Canceled)

4. (Previously Presented) The method of claim 1, further including storing the predictive CQI.

5. (Previously Presented) The method of claim 1, wherein deriving the predictive CQI utilizes a linear predictive algorithm.

6 – 11. (Canceled)

12. (Currently amended) A method for providing predictive channel quality measurements of a downlink communication channel comprising:

monitoring said downlink communication channel;

performing at least one current quality measurement on the downlink ~~data~~ communication channel to determine the current quality of the downlink ~~data~~ communication channel;

retrieving at least one stored quality measurement;

deriving, based on the performing at least one current quality measurement and the at least one stored quality measurement, a prediction of the future quality of the downlink data communication channel on a per time slot basis; and

transmitting the prediction to a Node B, wherein the prediction represents at least one of a recommended transport block size, modulation format, or number of codes.

13. (Previously Presented) The method of claim 12, further including storing the at least one current quality measurement.

14. (Canceled)

15. (Previously Presented) The method of claim 12, further including storing the prediction.

16. (Previously Presented) The method of claim 12, wherein the deriving a prediction utilizes a linear predictive algorithm.

17 – 31. (Canceled)

32. (Currently Amended) A method for predicting a future quality of a communication channel comprising:

receiving a downlink data communication;

receiving a ~~said~~ pilot channel communication;

performing at least one current quality measurement on the downlink ~~data~~ communication channel and the pilot channel communication to determine the current quality of the downlink ~~data~~ communication channel;

retrieving at least one stored quality measurement;

deriving, based on the ~~performing~~ at least one current quality measurement and the at least one stored quality measurement, a predictive channel quality indication (CQI) ~~estimates, and~~ estimating the future quality of the downlink ~~data~~ communication channel on a per time slot basis; and

transmitting the predictive CQI to a Node B, wherein the predictive CQI includes at least one of a recommended transport block size, modulation format, or number of codes.

33. (Previously Presented) The method of claim 32, further including storing the at least one current quality measurement.

34. (Canceled)

35. (Previously Presented) The method of claim 32, further including storing the predictive CQI.

36. (Previously Presented) The method of claim 32, wherein the deriving a predictive CQI utilizes a linear predictive algorithm.

37. (Previously Presented) The method of claim 1 performed at a wireless transmit/receive unit (WTRU).

38. (Previously Presented) The method of claim 12 performed at a wireless transmit/receive unit (WTRU).

39. (Previously Presented) The method of claim 32 performed at a wireless transmit/receive unit (WTRU).